

CLAIMS:

1. A method for sensing a light emissive element (25) in an active matrix display pixel cell (20; 20'), further comprising a data line (21) connectable to a drive element (24) and to a first electrode (29) of the emissive element (25), said method comprising: during repeated output periods, connecting the data line (21) to the drive element (24), and providing on the data line (21) a drive signal (V) to cause the emissive element (25) to generate light, and during a sensing period, between two output periods, connecting the data line (21) to the first electrode (29) of the emissive element (25), providing on the data line (21) a sensing voltage (V1) to reverse bias the emissive element (25), and detecting any leakage current (IL) flowing through the emissive element (25).
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2. A method according to claim 1, wherein sensing periods are performed recurrently, separated by a predefined number of output periods.
- 15 3. A method according to claims 1 - 2, wherein said pixel cell (20; 20') comprises two switches (26, 27; 32, 33) for connecting said data line (21) to the drive element (24) and/or the anode (29) of the emissive element (25), said method further comprising: controlling said switches so that, during said sensing period, the data line (21) is connected only to said first electrode (29).
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4. A method according to claim 1 - 3, further comprising analyzing the leakage current (IL) to determine if the emissive element (25) has been subject to any external influence.
- 25 5. A method according to claim 1 - 3, further comprising: analyzing said

leakage current to determine if the emissive element (25) is defect and, if this is the case, providing to the first electrode (29) of the emissive element (25) a healing voltage to remove any defect in the emissive element.

5 6. A method according to claim 4, wherein said healing voltage is applied during the successive sensing period.

7. A method according to claim 1 - 3, further comprising: analyzing said leakage current to determine if the emissive element is defect and, if this is the case, 10 adjusting the drive of the pixel in accordance with the defect.

8. A method according to claim 7, wherein the defect pixel is deactivated.

9. A method according to claim 7 - 8, wherein the drive of surrounding 15 pixels is adjusted in order to mask the defect.

10. A method according to claim 7 - 9, wherein said adjusting step is performed before or during the next successive output period.

20 11. A method according to any of the preceding claims, wherein the emissive element is an organic or polymer light emitting diode.

12. An active matrix display device, comprising a plurality of pixel cells (20; 20') each having a current driven emissive element (25) and means for connecting a 25 data line (21) to the first electrode (29) of the emissive element, further characterized by: means (1; 43, 44) for providing on the data line a sensing voltage (V1) which is negative in respect of an emissive element cathode voltage (31), thereby reverse biasing the emissive element (25), and means (41, 42) for detecting any leakage current flowing through the emissive element.

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13. A display device according to claim 12, wherein each pixel cell (20)

comprises two switches (26, 27) arranged in series between the data line (21) and the drive element (24), the emissive element first electrode (29) being connected to a point (30) between said switches.

5 14. A display device according to claim 12, wherein each pixel cell (20') comprises a first switch (32), provided between the data line (21) and the drive element (24), and a second switch (33) provided between the data line (2) and the first electrode (29) of the emissive element.

10 15. A display device according to claim 12 - 14, wherein the emissive element (25) is an organic or polymer light emitting diode.

16. A pixel cell in an active matrix display device, comprising a data line (21), a drive element (24), an emissive element (25), and a first switch (32), provided between the data line (21) and the drive element (24), characterized by a second switch (33) provided between the data line (21) and the first electrode (29) of the emissive element.